

HP StorageWorks

Fabric OS 5.0.0 addendum

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AA-RW1VA-TE



About this document

This document is an addendum written to supplement the Fabric OS 4.4.0 documentation. This document is specific to Fabric OS 5.0.0 and Brocade 4Gb SAN Switch for HP p-Class BladeSystem.

This document is structured so that first-level headings in the body of the addendum reference the Fabric OS guide that is affected by the change. Note that the Brocade 4Gb SAN Switch for HP p-Class BladeSystem works the same as the HP StorageWorks SAN Switch 4/32 with the exceptions noted in this addendum.

Of the documents listed in [Table 1](#), the following are affected by this addendum:

- *HP StorageWorks Fabric OS 5.0.0 command reference guide*
- *HP StorageWorks Fabric OS 5.0.0 diagnostic and systems error message reference guide*
- *HP StorageWorks Fabric Watch OS 5.0.0 user guide*
- *HP StorageWorks Fabric OS 5.0.0 procedures user guide*
- *HP StorageWorks Fabric OS 5.0.0 Advanced Web Tools user guide*

Documentation supporting Fabric OS 5.0.0

The Fabric OS 5.0.0 documentation set is listed in [Table 1](#).

Table 1 Documentation supporting Fabric OS 5.0.0

Document title	Part number
<i>HP StorageWorks Fabric OS 5.0.0 Advanced Web Tools user guide</i>	AA-RW1QA-TE
<i>HP StorageWorks Fabric OS 5.0.0 command reference guide</i>	AA-RW1MA-TE
<i>HP StorageWorks Fabric OS 5.0.0 features overview</i>	AA-RW1NA-TE
<i>HP StorageWorks Fabric OS 5.0.0 MIB reference guide</i>	AA-RW1QA-TE
<i>HP StorageWorks Fabric OS 5.0.0 procedures user guide</i>	AA-RW1PA-TE
<i>HP StorageWorks Fabric OS 5.0.0 diagnostic and systems error message reference guide</i>	AA-RW1SA-TE
<i>HP StorageWorks Fabric Watch OS 5.0.0 user guide</i>	AA-RW1TA-TE
<i>HP StorageWorks Secure Fabric OS 5.0.0 user guide</i>	AA-RW1UA-TE
<i>HP StorageWorks Brocade 4Gb SAN Switch for p-Class HP BladeSystem quick setup instructions</i>	A7533-90002
<i>HP StorageWorks Brocade 4Gb SAN Switch for HP p-Class BladeSystem installation guide</i>	AA-RW1LA-TE

Supported hardware and software

This document has been created to include information specific to the Brocade 4Gb SAN Switch for HP p-Class BladeSystem running on Fabric OS 5.0.0, including additional functionality or support in the software from Fabric OS 4.4.0.

This document does not support all 5.x Fabric OS versions. It is specific to Fabric OS 5.0.0. To obtain information about an OS version other than 5.0.0, refer to the documentation specific to your OS version.

How this addendum is organized

This addendum describes the changes to information in five HP StorageWorks Fabric OS 5.0.0 books:

- *Fabric OS command reference guide, page 6*
- *Diagnostic and systems error message reference guide, page 9*
- *Fabric Watch user guide, page 15*
- *Fabric OS procedures user guide, page 17*
- *Advanced Web Tools users guide, page 19*

At the beginning of each new topic, the specified guides affected are listed and the items changed for Fabric OS 5.0.0 are identified and cross-referenced by page number and section.

Fabric OS command reference guide

This section updates Chapter 1, "Fabric OS command line interface," of the *HP StorageWorks Fabric OS 5.0.0 command reference guide*.

This section explains how to manage HP StorageWorks SAN switches and the Brocade 4Gb SAN Switch for HP p-Class BladeSystem. The following information is discussed:

- [Understanding access levels](#), page 6
- [Using the Fabric OS command line interface](#), page 7

Refer to *HP StorageWorks Fabric OS 5.0.0 features overview* and *HP StorageWorks Fabric OS 5.0.0 procedures user guide* for information regarding optionally licensed features and information regarding configuration and management procedures, respectively.

Understanding access levels

Fabric OS supports two classes of user accounts: default account and multiple user account (MUA).

Default accounts, introduced in early versions of Fabric OS, include root, factory, admin, and user. Each account has hard-coded permissions that define roles whose privileges correspond to the account name. The root and factory levels are reserved for support and manufacturing personnel. The admin and user levels are intended for general switch and fabric administration activities. The admin role can perform all Fabric OS operations. The user role performs observation-only operations.

The MUAs available in Fabric OS 3.x and earlier provide only limited multiple user access to a switch. Each switch enables only a single session per access method, regardless of the user's access level. Switches can, however, be accessed simultaneously from different connections: for example, through the command line interface (CLI) and Web Tools. If this happens, changes from one connection might not be updated to the other, and some changes might be lost. When you connect using simultaneous multiple connections, make sure that you do not overwrite the work of another connection.

In Fabric OS 4.x, multiple sessions are allowed. Each access level can have the number of simultaneous logins shown in [Table 1](#).

Table 1 Fabric OS 4.x user access maximum simultaneous sessions

User name	Maximum number of simultaneous sessions
admin	2
user	4

The MUA feature distinguishes between a user account and the role assigned to the account. The switchAdmin role, introduced in Fabric OS 5.0.0, has most of the existing admin role

permissions except the ability to perform zone and security configuration and user management. Refer to [Table 2](#) for a high-level description of role permissions.

Table 2 Role permissions

Functional area	User	switchAdmin	admin
Zone configuration	View	View	Modify
Environmental	View	Modify	Modify
Logs (Remote Access Service - RAS)	View	Modify	Modify
Security	View	View	Modify
Switch configuration	View	Modify	Modify
Switch management	View	Modify	Modify
Port configuration	View	Modify	Modify
SNMP	View	Modify	Modify
Diagnostics	View	Modify	Modify
Devices	View	Modify	Modify
User management	View	n/a	Modify
Fabric Watch	View	Modify	Modify
Advanced Performance Monitoring	View	Modify	Modify
Admin domain management	View	n/a	Modify

The MUA feature was introduced in Fabric OS 3.2.0 and 4.4.0. The switchAdmin role can log in; however, the role is restricted to user-level, observation-based functions.

NOTE: The admin access level has access to all the commands needed to manage and configure a switch or fabric. The admin account is the recommended login level.

Using the Fabric OS command line interface

The Fabric OS command line interface (accessed through either telnet or serial console) provides an administrator with full management capability on an HP StorageWorks switch or a Brocade 4Gb SAN Switch for HP p-Class BladeSystem switch. The Fabric OS CLI enables an administrator to monitor and manage entire fabrics, individual switches, and ports from a standard workstation. The entire suite of Fabric OS features and capabilities is available across an entire fabric, from a single access point. Selected commands must be issued from a sectelnet or SSH session, as indicated in the command description in this guide.

Access to the CLI is controlled by a switch-level password for each access level. The commands available through the CLI are based on the user's login level or role and the license keys used to unlock certain features.

Fabric OS CLI is the complete fabric management tool for HP StorageWorks SAN switches and a Brocade 4Gb SAN Switch for HP p-Class BladeSystem, providing:

- access to the full range of Fabric OS features, based on which license keys you purchase.
- assistance with configuration, monitoring, dynamic provisioning, and daily management of every aspect of storage area networks.
- a deeper view of the tasks involved in managing an HP StorageWorks switch or director.
- configuration and management of the HP StorageWorks fabric on multiple levels.
- identification, isolation, and management of SAN events across every switch in the fabric.
- management switch licenses.

The rest of this guide describes each CLI command, including a synopsis of its syntax, the users to whom it is available, and a description of command use and behavior. The same information is available to you on your HP StorageWorks switch or director or Brocade 4Gb SAN Switch for HP p-Class BladeSystem, using the **help** command. For example, to display the help or man page for **aliAdd**, enter:

```
switch:admin> help aliadd
```

Fabric OS 5.0.0 supports the following new commands:

- enclosureShow
- fabricLog
- fabStateResize
- fcPing

Use the **help** command to display detailed information for these commands.

Diagnostic and systems error message reference guide

ZONE audit messages

This section contains updates to the *HP StorageWorks Fabric OS 5.0.0 diagnostic and systems error message reference guide*.

ZONE-3001

Message

```
<timestamp>, [ZONE-3001], <sequence-number>, AUDIT, INFO,  
<system-name>, User: <User Name>, Role: <User Role>, Event: <Event  
Name>, Status: <Event Status>, Info: <Zone object type> \"<Zone object  
member list>\" added to <Zone object set type> \"<Zone object set  
name>\".
```

Probable cause

Indicates that a new zone object member or members have been added to a zone object set.

A zone object may be an alias, zone member, zone, or zone configuration. The string "..." appears at the end of the zone object member list if the list is truncated in the message.

Recommended action

Verify that the event was planned. If the event was planned, no action is required. If the event was not planned, take appropriate action, as defined by your enterprise security policy.

Severity

INFO

ZONE-3002

Message

```
<timestamp>, [ZONE-3002], <sequence-number>, AUDIT, INFO,  
<system-name>, User: <User Name>, Role: <User Role>, Event: <Event  
Name>, Status: <Event Status>, Info: <Zone object set type> \"<Zone object  
set name>\" created with <Zone object type> \"<Zone object  
member list>\".
```

Probable cause

Indicates that a new zone object set was created with the specified zone object member or members added.

A zone object may be an alias, zone member, zone, or zone configuration. The string "... appears at the end of the zone object member list if the list is truncated in the message.

Recommended action

Verify that the event was planned. If the event was planned, no action is required. If the event was not planned, take appropriate action, as defined by your enterprise security policy.

Severity

INFO

ZONE-3003

Message

```
<timestamp>, [ZONE-3003], <sequence-number>, AUDIT, INFO,  
<system-name>, User: <User Name>, Role: <User Role>, Event: <Event  
Name>, Status: <Event Status>, Info: <Zone object type> \"<Zone object  
name>\" deleted.
```

Probable cause

Indicates that a specified zone object has been deleted.

A zone object may be an alias, zone member, zone, or zone configuration.

Recommended action

Verify that the event was planned. If the event was planned, no action is required. If the event was not planned, take appropriate action as defined by your enterprise security policy.

Severity

INFO

ZONE-3004

Message

```
<timestamp>, [ZONE-3004], <sequence-number>, AUDIT, INFO,  
<system-name>, User: <User Name>, Role: <User Role>, Event: <Event  
Name>, Status: <Event Status>, Info: <Zone object type> \"<Zone object  
member list>\" removed from <Zone object set type> \"<Zone object set  
name>\".
```

Probable cause

Indicates that a specified zone object member or members have been removed from a specified zone object set.

A zone object may be an alias, zone member, zone or zone configuration. The string "... appears at the end of the zone object member list if the list is truncated in the message.

Recommended action

Verify that the event was planned. If the event was planned, no action is required. If the event was not planned, take appropriate action as defined by your enterprise security policy.

Severity

INFO

ZONE-3005

Message

```
<timestamp>, [ZONE-3005], <sequence-number>, AUDIT, INFO,  
<system-name>, User: <User Name>, Role: <User Role>, Event: <Event  
Name>, Status: <Event Status>, Info: All zone information cleared from  
transaction buffer.
```

Probable cause

Indicates that all zone information has been cleared from the transaction buffer.

Recommended action

Verify that the event was planned. If the event was planned, no action is required. If the event was not planned, take appropriate action as defined by your enterprise security policy.

Severity

INFO

ZONE-3006

Message

```
<timestamp>, [ZONE-3006], <sequence-number>, AUDIT, INFO,  
<system-name>, User: <User Name>, Role: <User Role>, Event: <Event  
Name>, Status: <Event Status>, Info: Current zone configuration  
disabled.
```

Probable cause

Indicates that the current zone configuration has been disabled.

Recommended action

Verify that the event was planned. If the event was planned, no action is required. If the event was not planned, take appropriate action as defined by your enterprise security policy.

Severity

INFO

ZONE-3007

Message

```
<timestamp>, [ZONE-3007], <sequence-number>, AUDIT, INFO,  
<system-name>, User: <User Name>, Role: <User Role>, Event: <Event  
Name>, Status: <Event Status>, Info: Zone configuration \"<Zone  
configuration>\" enabled.
```

Probable cause

Indicates that a specified zone configuration has been enabled.

Recommended action

Verify that the event was planned. If the event was planned, no action is required. If the event was not planned, take appropriate action as defined by your enterprise security policy.

Severity

INFO

ZONE-3008

Message

```
<timestamp>, [ZONE-3008], <sequence-number>, AUDIT, INFO,  
<system-name>, User: <User Name>, Role: <User Role>, Event: <Event  
Name>, Status: <Event Status>, Info: Current zone configuration saved  
to flash.
```

Probable cause

Indicates that the current zone configuration has been saved to flash.

Recommended action

Verify that the event was planned. If the event was planned, no action is required. If the event was not planned, take appropriate action as defined by your enterprise security policy.

Severity

INFO

ZONE-3009

Message

```
<timestamp>, [ZONE-3009], <sequence-number>, AUDIT, INFO,  
<system-name>, User: <User Name>, Role: <User Role>, Event: <Event  
Name>, Status: <Event Status>, Info: <Event Description>
```

Probable cause

Indicates that a zone transaction has been aborted.

Recommended action

Verify that the event was planned. If the event was planned, no action is required. If the event was not planned, take appropriate action as defined by your enterprise security policy.

Severity

INFO

ZONE-3010

Message

```
<timestamp>, [ZONE-3010], <sequence-number>, AUDIT, INFO,  
<system-name>, User: <User Name>, Role: <User Role>, Event: <Event  
Name>, Status: <Event Status>, Info: Zone object \"<Zone object name>\"  
copied to new zone object \"<New Zone object name>\".
```

Probable cause

Indicates that a specified zone object has been copied to a new zone object.

Recommended action

Verify that the event was planned. If the event was planned, no action is required. If the event was not planned, take appropriate action as defined by your enterprise security policy.

Severity

INFO

ZONE-3011

Message

```
<timestamp>, [ZONE-3011], <sequence-number>, AUDIT, INFO,  
<system-name>, User: <User Name>, Role: <User Role>, Event: <Event  
Name>, Status: <Event Status>, Info: Zone object \"<Zone object name>\"  
expunged.
```

Probable cause

Indicates that a specified zone object has been expunged.

Recommended action

Verify that the event was planned. If the event was planned, no action is required. If the event was not planned, take appropriate action as defined by your enterprise security policy.

Severity

INFO

ZONE-3012

Message

```
<timestamp>, [ZONE-3012], <sequence-number>, AUDIT, INFO,  
<system-name>, User: <User Name>, Role: <User Role>, Event: <Event  
Name>, Status: <Event Status>, Info: Zone object \"<Zone object name>\"  
renamed to \"<New Zone object name>\".
```

Probable cause

Indicates that a specified zone object has been renamed.

Recommended action

Verify that the event was planned. If the event was planned, no action is required. If the event was not planned, take appropriate action as defined by your enterprise security policy.

Severity

INFO

Fabric Watch user guide

This section contains updates to the *HP StorageWorks Fabric Watch OS 5.0.0 user guide*.

- On page A-2 of the user guide, under the heading “Environment Class” the settings for Temperature have been updated to include Brocade 4Gb SAN Switch for HP p-Class BladeSystem as follows:

Environment class

Table 3 provides default settings for areas in the Environment class. These defaults are hardware-dependent. Check the appropriate hardware reference manual for differences in environmental requirements.

Table 3 Environment class threshold defaults

Area	Description	Default threshold settings	Default alarm settings	Threshold state
Fan	Monitors switch fan speed in RPMs	Unit: RPM Time Base: none <i>HP StorageWorks SAN Switch 2/8V and Switch 2/16V</i> Low: 4500 High: 11000 Buffer: 3 <i>HP StorageWorks SAN Switch 2/32</i> Low: 2600 High: 10000 Buffer: 3 <i>HP StorageWorks SAN Switch 4/32</i> Low: 3000 High: 12000 Buffer: 3 <i>HP StorageWorks Core Switch 2/64</i> Low: 2600 High: 3400 Buffer: 3 <i>HP StorageWorks Core Switch 2/128</i> Low: 1600 High: 3400 Buffer: 3	Changed: 0 Above: 3 Below: 3 In-Between: 1	Informative Out_of_range Out_of_range In_range

Table 3 Environment class threshold defaults (continued)

Area	Description	Default threshold settings	Default alarm settings	Threshold state
Power Supply	Monitors power supply condition	Unit: 1/0 (OK/FAULTY) Time Base: none The default threshold settings for all platforms are: Low: 1 High: 0 Buffer: 0	Changed: 0 Below: 3 Above: 3 In-Between: 0	Informative Out_of_range In_range Informative
Temperature	Monitors switch temperature in Celsius	<i>HP StorageWorks SAN Switch 2/8V and SAN Switch 2/16V</i> Low: 0 High: 64 Buffer: 10 <i>HP StorageWorks SAN Switch 2/32</i> Low: 10 High: 67 Buffer: 10 <i>Brocade 4Gb SAN Switch for HP p-Class BladeSystem</i> Low: 0 High: 71 Buffer: 10 <i>HP StorageWorks SAN Switch 4/32</i> Low: 0 High: 60 Buffer: 10 <i>HP StorageWorks Core Switch 2/64</i> Low: 10 High: 75 Buffer: 10 <i>HP StorageWorks Core Switch 2/128</i> Low: 0 High: 75 Buffer: 10	Changed: 0 Below: 3 Above: 3 In-Between: 3	Informative Out_of_range Out_of_range In_range

Fabric OS procedures user guide

This section contains updates to the HP StorageWorks Fabric OS 5.0.0 procedures user guide.

- Add “Brocade 4Gb SAN Switch for HP p-Class BladeSystem ” everywhere that the HP StorageWorks SAN Switch 4/32 is mentioned, except as specified in the following sections.

- On page 43, in the section “Creating and maintaining a user-defined account,” change the following definition item:

-r rolename Specifies the role: either admin or user in nonsecure mode; admin, user, or nonfcsadmin in secure mode.

to:

-r rolename Specifies the role: either admin or user in nonsecure mode or admin, user, switchAdmin, or nonfcsadmin in secure mode.

- On page 44, in the section “To change account parameters,” change the following definition item:

-r rolename Specifies the role: either admin or user in nonsecure mode; admin, user, or nonfcsadmin in secure mode.

to:

-r rolename Specifies the role: either admin or user in nonsecure mode; admin, user, switchAdmin, or nonfcsadmin in secure mode.

- On page 107, in the section “SAN Switch 4/32” add the following:

For the Brocade 4Gb SAN Switch for HP p-Class BladeSystem, each port group contains four ports and buffer credits are shared among all ports on the switch.

- On page 108, in the section “Choosing an extended ISL mode,” add the following:

Brocade 4Gb SAN Switch for HP p-Class BladeSystem

The number of ports that can be configured at various distances is summarized in [Table 4](#).

Table 4 Brocade 4Gb SAN Switch for HP p-Class BladeSystem

Speed (Gbit/sec)	Number of ports allowed at distance (km)			
	1	2	3	4
4	79.5 km	42.5 km	30.15 km	24 km
2	159 km	85 km	60.3 km	48 km
1	318 km	170 km	120.6 km	96 km

- On page 146, in the section “Adding end-to-end monitors,” change the following paragraph:

The HP StorageWorks SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, Core Switch 2/64, SAN Director 2/128, allow up to eight end-to-end monitors allow up to eight end-to-end monitors.

to:

The HP StorageWorks SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, Core Switch 2/64, SAN Director 2/128, and Brocade 4Gb SAN Switch for HP p-Class BladeSystem allow up to eight end-to-end monitors.

- On page 149, in the section “Monitoring filter-based performance,” change the following paragraph:

For HP StorageWorks SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, Core Switch 2/64, and SAN Director 2/128, the maximum number of filters is eight per port, in any combination of standard filters and user-defined filters.

to:

For HP StorageWorks SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, Core Switch 2/64, SAN Director 2/128, and Brocade 4Gb SAN Switch for HP p-Class BladeSystem, the maximum number of filters is eight per port, in any combination of standard filters and user-defined filters.

- On page 219, in the section “HP StorageWorks switch requirements,” add the following:
 - Brocade 4Gb SAN Switch for HP p-Class BladeSystem running Fabric OS 5.0.0 or later.

Advanced Web Tools users guide

This section contains updates to the *HP StorageWorks Fabric OS 5.0.0 Advanced Web Tools user guide*.

- On page 24, in the section “Launching Advanced Web Tools,” change the following sentence:

For a list of Web browsers compatible with Fabric OS 4.4.0, refer to “Requirements” on page 23.

to:

For a list of Web browsers compatible with Fabric OS 5.0.0, refer to “Requirements” on page 23.

- On page 24, in the section “Launching Advanced Web Tools,” add the following after the first paragraph:

When you launch Advanced Web Tools, you must log in to establish a session. You can log in at the admin, switchAdmin, or user level. Each role gives you different access levels:

- admin - You have full access to all of the Web Tools functionality.
- switchAdmin - You can do everything the admin role can do, except for the following:
 - You cannot modify zoning configurations.
 - You cannot change account information for any accounts other than your own.
- user - You can view switch information, but cannot access any of the switch administration modules.

- On page 24, in the section “To launch Web Tools,” add the following information after step 2:

The switch banner displays, if one is configured for the switch.

3) *Optional:* Accept the security terms as displayed in the banner.

The login dialog box is displayed.

4) Type the user name of an account and the admin, switchAdmin, or user role.

5) Type the password.

6) Click **OK**.

- On page 1-3:

After this sentence:

The SAN Switch 2/8V Switch Explorer view (shown in [Figure 4](#) on page 29) is a good example showing how the SAN Switch 2/16V, SAN Switch 2/32, and SAN Switch 4/32 Switch Explorer views look.

Add this sentence:

The Switch Explorer (shown in [Figure 4](#) on page 29) is a good example of how the Brocade 4Gb SAN Switch for HP p-Class BladeSystem Switch Explorer view looks.

- On page 26:

Replace this paragraph:

In [Figure 2](#), the Core Switch 2/64 has two domains; there is a separate set of Switch View buttons for each logical switch. When only one domain exists, there is one shared set of Switch View buttons, as displayed in [Figure 3](#). The active CP in the Core Switch 2/64 is labeled with a small arrow at the bottom of the CP display.

With the following:

In [Figure 2](#), the Core Switch 2/64 director has two domains; however, only one domain is displayed. You can view and manage only one domain at a time, even though both domains are enclosed in the same chassis. To manage the other domain, you must log in to it separately. The active CP in the Core Switch 2/64 director is labeled with a small arrow at the bottom of the CP display.

- On page 16:

After this sentence:

[Figure 2](#) on page 27 shows an example of the Web Tools Switch Explorer for a Core Switch 2/64.

Add the following:

This format is similar to the Switch Explorer format for the Brocade 4Gb SAN Switch for HP p-Class BladeSystem.

- On page 31, in the section “Switch Information View”:

Replace this sentence:

For all other switch types (HP StorageWorks SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, and SAN Switch 4/32), the Switch Information View is located beneath the graphic representation of the switch.

With the following:

For all other switch types (HP StorageWorks SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, SAN Switch 4/32, and Brocade 4Gb SAN Switch for HP p-Class BladeSystem), the Switch Information View is located below the graphic representation of the switch.

- On page 32, after the section “Displaying switches in the fabric,” add the following section:

Ending the Web Tools session

You can end your Web Tools session by either logging out or closing the Switch Explorer browser window.

A session automatically times out if it has been inactive for longer than 10 minutes. If the session times out, you must restart your browser, access Web Tools, and log in again.

To end the Web Tools session

Click **Logout** in the Switch Explorer.

or

Click the X in the upper right corner of the Switch Explorer browser window to close the window.

- On page 32, in the section “Opening modules in a secure fabric,” add the following:

Replace the following sentences:

When opening modules in a secure fabric, log in to one module at a time and complete the entire login process before proceeding to another task. For example, if you want to access both the Zone Admin and the Switch Admin modules, open one of the modules, log in, and wait for it to load completely before opening the second module.

With the following:

When opening modules in a secure fabric, wait for each module to load completely before proceeding to any other task. For example, if you want to access both the Zone Admin and the Switch Admin modules, open one of the modules and wait for it to load completely before opening the second module.

- On page 39, in the section “Switch support,” replace the first sentence:

You can use Web Tools 4.x with the following hardware:

With the following:

You can use Web Tools 5.0.0 with the following hardware:

- On page 39, in the section “Switch support,” add the following to the list of switches:
 - Brocade 4Gb SAN Switch for HP p-Class BladeSystem
- On page 42, in the section “Managing fabrics, switches, and ports using Advanced Web Tools,” replace the first two sentences:

When you click the **Admin** button from the Switch View, you must log in as an admin to launch the Switch Admin module. Information displayed in the Switch Admin module is *not* updated automatically by Advanced Web Tools.

With the following:

With the exception of switch time, information displayed in the Switch Admin module is *not* updated automatically by Web Tools.

- On page 43, in the section “Launching the Switch Admin module,” delete the following:

The login dialog box opens.

 - 1) Enter the user name of an account with the admin role.
 - 2) Enter the password.
- On page 47, in the section “Changing the switch name,” replace this sentence:

Switch names can be a maximum of 15 characters long for Fabric OS 4.x.

With the following:

Switch names can be a maximum of 15 characters long for Fabric OS 5.0.0.

- On page 52, replace [Figure 10, “Ports tab,”](#) with the following:

SwitchName: msit_test_name - Switch Admin. - Microsoft Internet Explorer

DomainID: 4 VWN: 10:00:00:60:69:90:03:13 Wed Dec 08 2004 12:18:03 UTC

Switch Network Firmware SNMP License

Ports User Configure Routing Extended Fabric AAA Service Trace FICON CUP Trunking

Port Number Licensed Port Topology Current Type Enable E-Port Enable Trunking Enable Port Persistent Disable Port State Current Speed Change Speed Port Name

0 Yes Allow All U-Port No_Light N2 Negotiate TestPortLock

1 Yes Allow All U-Port No_Light N2 Negotiate

2 Yes Allow All U-Port In_Sync N2 Negotiate TestPortLockNe

3 Yes Allow All U-Port No_Light N2 Negotiate

4 Yes Allow All U-Port No_Light N2 Negotiate

5 Yes Allow All U-Port No_Light N2 Negotiate

6 Yes Allow All U-Port No_Light N2 Negotiate

7 Yes Allow All U-Port No_Light N2 Negotiate

8 Yes Allow All U-Port No_Light N2 Negotiate

9 Yes Allow All U-Port No_Light N2 Negotiate

10 Yes Allow All U-Port No_Module N2 Negotiate

11 Yes Allow All U-Port No_Module N2 Negotiate

[Switch Administration opened]: Wed Dec 08 2004 12:11:02 UTC

Configure Port Setting parameters

Apply Close Refresh

Figure 10 Ports tab

- On page 23, add the following section after [Figure 10:](#)

Configuring port type

The Current Type column in the Ports tab indicates the current type of the port. Use the following procedure to change the port type.

To change the port type

- Launch the Switch Admin module as described on page 43.
- Click the **Ports** tab and take the action appropriate to your system:
 - For HP StorageWorks Core Switch 2/64 and Core Switch 2/128 directors, select the subtab that corresponds to the correct slot for the logical switch.

- For HP StorageWorks SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, Brocade 4Gb SAN Switch for HP p-Class BladeSystem, and SAN Switch 4/32 switches, proceed directly to the next step.

3. Click the number of the port you want to change.
4. Select a port type from the corresponding Topology drop-down list.
 - Allow All - allows the port to be of any type (E_Port, F_Port, or FL_Port).
 - Pt-to-Pt[G-Port] - locks the port as a G_Port. The port can be either an E_Port or an F_Port.
 - Loop[L-Port] - locks the port as an L_Port. The port must be an FL_Port.
5. Check the **Enable E-Port** checkbox to allow the port to be an E_Port; however, do not check this option if the topology is Loop[L-Port]. (A port cannot be both an E_Port and an L_Port.)
6. Click **Apply**.

- On page 52, in the section “Configuring port speed,” replace this sentence:

For HP StorageWorks SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, and SAN Switch 4/32 switches, proceed directly to the next step.

With the following:

For HP StorageWorks SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, SAN Switch 4/32 switches, and Brocade 4Gb SAN Switch for HP p-Class BladeSystem, proceed directly to the next step.

- On page 53, in the section, “To name a port,” replace this sentence:

For HP StorageWorks SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, and SAN Switch 4/32 switches, proceed directly to the next step.

With the following:

For HP StorageWorks SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, SAN Switch 4/32 switches, and Brocade 4Gb SAN Switch for HP p-Class BladeSystem, proceed directly to the next step.

- On page 53, in the section, “Disabling a port over reboots”, replace this sentence:

For HP StorageWorks SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, and SAN Switch 4/32 switches, proceed directly to the next step.

With the following:

For HP StorageWorks SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, SAN Switch 4/32, and Brocade 4Gb SAN Switch for HP p-Class BladeSystem, proceed directly to the next step.

- On page 53, in the section, “Enabling and disabling a port,” replace this sentence:

For HP StorageWorks SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, and SAN Switch 4/32 switches, proceed directly to the next step.

With the following:

For HP StorageWorks SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, SAN Switch 4/32, and Brocade 4Gb SAN Switch for HP p-Class BladeSystem, proceed directly to the next step.

- On page 56, replace [Figure 11](#), “Extended Fabric tab,” with the following:

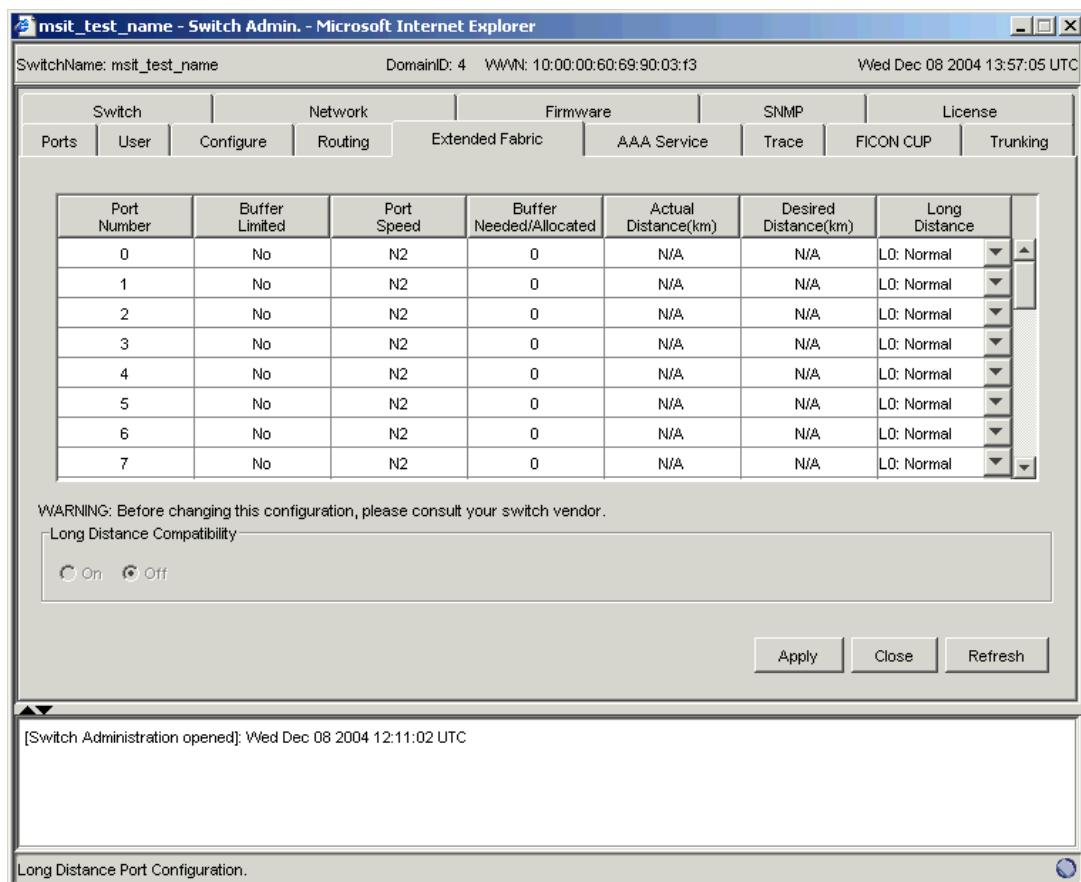


Figure 11 Extended Fabric tab

- On page 56, in the section, “To configure a port for long-distance connection,” replace this sentence:

For HP StorageWorks SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, and SAN Switch 4/32 switches, proceed directly to the next step.

With the following:

For HP StorageWorks SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, SAN Switch 4/32, and Brocade 4Gb SAN Switch for HP p-Class BladeSystem, proceed directly to the next step.

- On page 57, in the section “Configuring routes,” replace this paragraph:

Routing policies are configured from the CLI. For Fabric OS 4.x, the supported routing policies are:

- port-based
- device-based (SAN Switch 4/32 only)
- exchanged-based (SAN Switch 4/32 only)

For the SAN Switch 4/32 only, the exchange-based routing policy is the default.

With the following:

Routing policies are configured from the CLI. For Fabric OS 5.0.x, the supported routing policies are:

- port-based
- device-based (SAN Switch 4/32 and Brocade 4Gb SAN Switch for HP p-Class BladeSystem only)
- exchanged-based (SAN Switch 4/32 and Brocade 4Gb SAN Switch for HP p-Class BladeSystem only)

For the SAN Switch 4/32 and Brocade 4Gb SAN Switch for HP p-Class BladeSystem, the exchange-based routing policy is the default.

- On page 58, in the section “To view FSPF routing,” replace this sentence:

For HP StorageWorks SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, and SAN Switch 4/32, click the FSPF Route category in the navigation tree.

With the following:

For HP StorageWorks SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, SAN Switch 4/32, and Brocade 4Gb SAN Switch for HP p-Class BladeSystem, click the FSPF Route category in the navigation tree.

- On page 59, in the section “To configure a static route,” replace this sentence:

For HP StorageWorks SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, and SAN Switch 4/32 switches, click the Static Route category in the navigation tree and then click **Add**.

With the following:

For HP StorageWorks SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, SAN Switch 4/32, and Brocade 4Gb SAN Switch for HP p-Class BladeSystem, click the Static Route category in the navigation tree and then click **Add**.

- On page 60, in the section “To configure the link cost for a port,” replace this sentence:

For HP StorageWorks SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, and SAN Switch 4/32 switches, select **Link Cost** in the navigation tree.

With the following:

For HP StorageWorks SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, SAN Switch 4/32, and Brocade 4Gb SAN Switch for HP p-Class BladeSystem, select **Link Cost** in the navigation tree.

- On page 65, in the section “To disable or reenable trunking mode on a port,” replace this sentence:

For HP StorageWorks SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, and SAN Switch 4/32, proceed directly to the next step.

With the following:

For HP StorageWorks SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, SAN Switch 4/32 and Brocade 4Gb SAN Switch for HP p-Class BladeSystem, proceed directly to the next step.

- On page 69, in the section “Creating and Maintaining User-Defined Accounts,” replace the first sentence:

In addition to the four default accounts—root, factory, admin, and user—Fabric OS supports up to 15 user-defined accounts in each logical switch (domain).

With the following:

In addition to the five default accounts—root, factory, admin, switchAdmin, and user—Fabric OS supports up to 15 user-defined accounts in each logical switch (domain).

- On page 69, in the section “Creating and Maintaining User-Defined Accounts,” replace the second paragraph:

The User tab of the Switch Admin module (see [Figure 17](#)) displays account information and enables you to create and manage user accounts.

With the following:

If you are logged in as an admin, the User tab of the Switch Admin module (see [Figure 17](#)) displays account information and enables you to create and manage user accounts. If you are logged in as a switchAdmin, you can change your own password but cannot view or modify other accounts. If you are logged in as a user role, you cannot access the Switch Admin module.

- On page 69, in the section “To display account information,” after this sentence:

A list of the default and user-defined accounts opens.

Add the following:

If you are logged in using the switchAdmin role, only your account information is displayed.

- On page 69, in the section “To create a user-defined account,” replace step 5:

Select a role from the list: either admin or user in nonsecure mode; admin, user, or nonfcadmin in secure mode.

With the following:

Select a role from the list: either admin, switchAdmin, or user in nonsecure mode; admin, switchAdmin, user, or nonfcadmin in secure mode.

- On page 70, in the section “To change account parameters,” replace step 5:

Select a role from the list: either admin or user in nonsecure mode; admin, user, or nonfcadmin in secure mode.

With the following:

Select a role from the list: admin, switchAdmin, or user in nonsecure mode; admin, switchAdmin, user, or nonfcadmin in secure mode.

- On page 71, in the section “To change the password for an admin or user level account,” change the name of the section, to the following:

“To change the password of an account”

- On page 71, in the section “To change the password for an admin or user level account,” replace step 3:

3) Select the account to modify.

You can change the password of your own account, peer admin accounts, and user accounts. You cannot change the root or factory account passwords.

With the following:

3) Select the account to modify.

If you are logged in as admin, you can change the password of your own account, peer admin accounts, switchAdmin accounts, and user accounts. You cannot change the root or factory account passwords.

If you are logged in as a switchAdmin, you can only change the password of your own account.

- On page 73, in the “To launch the Hi Avail module” section, delete the following:

The login dialog box is displayed.

3) Enter the user name of an account with the admin role.

4) Enter the password.

- On page 90, in the “Displaying port information” section, in the last paragraph, replace this sentence:

For the HP StorageWorks SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, and SAN Switch 4/32, there are no subtabs for the slots, there are no subtabs for the slots.

With the following:

For HP StorageWorks SAN Switch 2/8V, Switch 2/16V, SAN Switch 2/32, SAN Switch 4/32, and Brocade 4Gb SAN Switch for HP p-Class BladeSystem, there are no subtabs for the slots.

- On page 91, in the section “To access the Port Information screen,” replace this sentence:

For the HP StorageWorks SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, and SAN Switch 4/32, and SAN Switch 4/32 switches, proceed directly to the next step.

With the following:

For HP StorageWorks SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, SAN Switch 4/32, and Brocade 4Gb SAN Switch for HP p-Class BladeSystem, proceed directly to the next step.

- On page 93, in the section “Managing zoning with Advanced Web Tools,” delete the following sentence:

When you click the Zone Admin icon from the Fabric Toolbar, you must log in as an admin user to launch the Zone Admin module.

And replace it with the following paragraph:

You must be logged in as an admin or switchAdmin to launch the Zone Admin module. If you are logged in as a switchAdmin, you can access the Zone Admin module in read-only mode only; most of the zoning operations are disabled in read-only mode.

- On page 95, in the section “Launching the Zone Administration module,” delete the following:

The login dialog box opens.

3) Enter the user name of an account with the admin role.

4) Enter the password.

- On page 101, in the section “Managing QuickLoops,” replace this paragraph:

QuickLoop can be administered using Fabric OS 4.x versions; however, switches or directors running Fabric OS v4.x cannot be members of a QuickLoop. HP StorageWorks Core Switch 2/64, SAN Director 2/128, SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, and SAN Switch 4/32 cannot be members of a QuickLoop.

With the following:

QuickLoop can be administered using Fabric OS 5.x versions; however, switches or directors running Fabric OS v5.x cannot be members of a QuickLoop. HP StorageWorks Core Switch 2/64, SAN Director 2/128, SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, SAN Switch 4/32, and Brocade 4Gb SAN Switch for HP p-Class BladeSystem cannot be members of a QuickLoop.

- On page 102, in the section “Managing Fabric Assist Zones,” replace this paragraph:

FA zones can be administered using Fabric OS 4.x; however, switches or directors running Fabric OS v4.x cannot be members of a Fabric Assist zone. HP StorageWorks Core Switch 2/64, SAN Director 2/128, SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, and SAN Switch 4/32 cannot be members of an FA zone.

With the following:

FA zones can be administered using Fabric OS 5.x; however, switches or directors running Fabric OS v5.x cannot be members of a Fabric Assist zone. HP StorageWorks Core Switch 2/64, SAN Director 2/128, SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, SAN Switch 4/32, and Brocade 4Gb SAN Switch for HP p-Class BladeSystem cannot be members of a FA zone.

- On page 119, replace this sentence:

For the SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, and SAN Switch 4/32, slot numbers are not identified.

With the following:

For the SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, SAN Switch 4/32, and Brocade 4Gb SAN Switch for HP p-Class BladeSystem, slot numbers are not identified.

- On page 121 in the section “To create a basic performance monitor graph,” replace this sentence:

For HP StorageWorks SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, and SAN Switch 4/32, you need only type a port number.

With the following:

For HP StorageWorks SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, SAN Switch 4/32, and Brocade 4Gb SAN Switch for HP p-Class BladeSystem, you need type only a port number.

- On page 121, in the section “To customize basic Performance Monitoring graphs,” replace this sentence:

For the HP StorageWorks SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, and SAN Switch 4/32, proceed to step 3.

With the following:

For HP StorageWorks SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, SAN Switch 4/32, and Brocade 4Gb SAN Switch for HP p-Class BladeSystem, proceed to step 3.

- On page 125, in step 5, replace this sentence:

For the SAN Switch 4/32, you can enter up to eight LUN masks.

With the following:

For the SAN Switch 4/32 and Brocade 4Gb SAN Switch for HP p-Class BladeSystem, you can enter up to eight LUN masks.

- On page 125, in the section “Creating an AL_PA error graph,” replace this sentence:

The AL_PA Error graph is not supported on the SAN Switch 4/32.

With the following:

The AL_PA Error graph is not supported on the SAN Switch 4/32 or on the Brocade 4Gb SAN Switch for HP p-Class BladeSystem.

- On page 130, in the section “To launch the Fabric Watch module,” delete the following:

The login dialog box opens.

3) Enter the user name of an account with the admin role.

4) Enter the password.

- On page 129, in [Table 11](#), “Firmware Download” row, replace this sentence:

SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, and SAN Switch 4/32 switches: loss of network connectivity is up to 1 minute if POST is disabled.

With the following:

SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/32, SAN Switch 4/32, and Brocade 4Gb SAN Switch for HP p-Class BladeSystem: loss of network connectivity is up to 1 minute if POST is disabled.

- On page 132, in [Figure 11](#), “Windows Operating Systems” row, replace this sentence:

You might still be able to invoke various features from Switch View, such as Status, Info, Fan Temp, Power, and Beacon.

With the following:

You might still be able to invoke various features from Switch View, such as Status, Fan Temp, Power, and Beacon.